

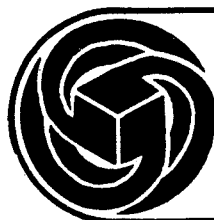
**SCHEMATIC DIAGRAMS**

**MOD.**

**F 50**

**ELECTRONIC ORGANS**

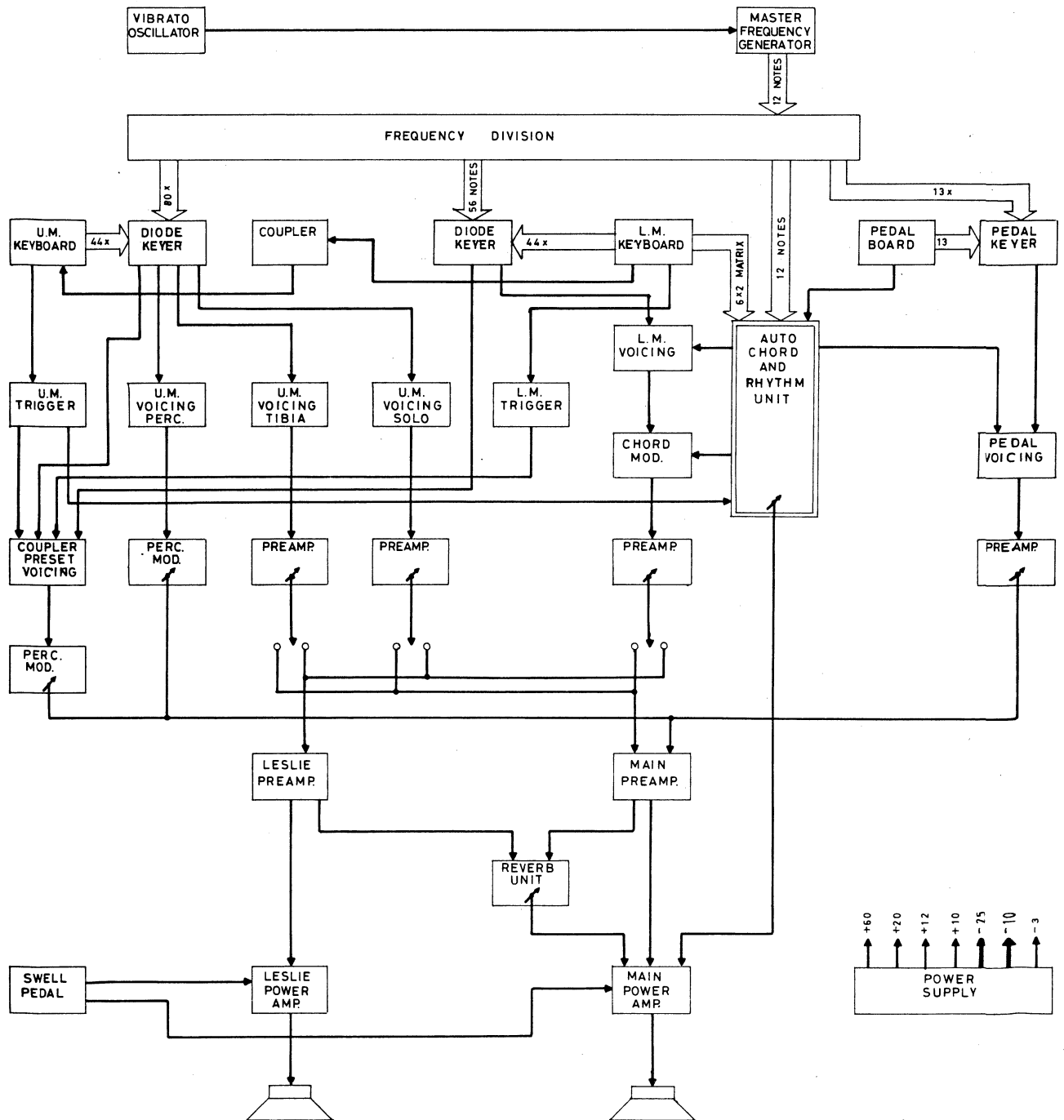
**A PRODUCT OF**



**GALANTI**  
**GROUP**

**MONDAINO - FO - ITALY**

| INDEX     | TITLE  | Int.<br>Code                           | Sch. Dia<br>Pag. |
|-----------|--|--|------------------|
|           | F 50 SCHEMATIC DIAGRAMS MASTER<br>MASTER BOOK .....  | 27.010                                 |                  |
| SO - 1256 | BLOCK DIAGRAM .....  |  | 1                |
| SO - 1216 | { MASTER OSC. & TONE GEN. ....<br>FREQUENCY DIVIDERS ....<br>DIODE KEYS .....<br>Σ AMP. .... | { 74.243<br>74.244<br>74.542<br>76.104 | { 2              |
| SO - 1217 | PERCUSSION .....   | 76.088                                 | 3                |
| SO - 1197 | { SOLO FILTERS .....<br>TIBIA FILTERS .....<br>WHA-WHA .....                                 | { 76.101<br>76.099<br>76.087           | { 4              |
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| SO - 1192 | { CYMBALS VOICING .....<br>DRUM VOICING I° .....<br>DRUM VOICING II° .....                   | { 75.024<br>75.025<br>75.035           | { 18             |
| SO - 1199 | P.U. ADDRESSING .....  | 75.031                                 | 19               |
| SO - 1161 | INTERCONNECTION LIST. ....   |  | 20               |

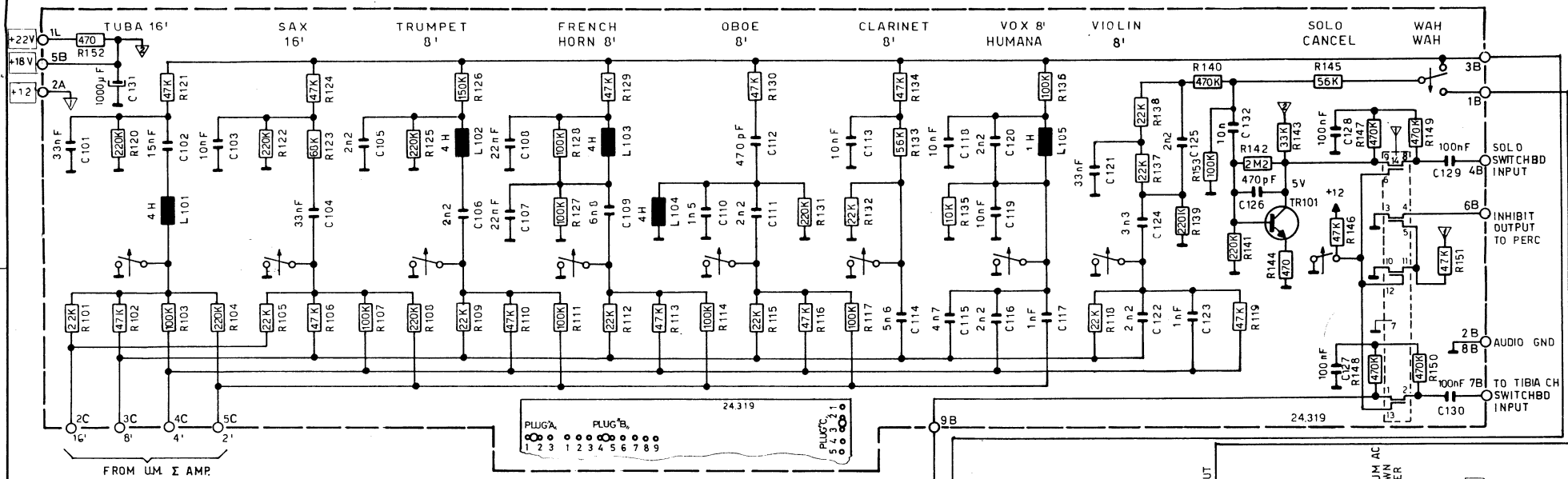


| REV.        | DATE   | BY      | SUBJECT      | DATE | CKD |
|-------------|--------|---------|--------------|------|-----|
| ISSUED      | 8-9-77 | Tobell  | USED ON:     |      |     |
| DRAWN       | 8-9-77 | K. Gump | F 50         |      |     |
| CKD         | 8-9-77 |         |              |      |     |
| APPROV      | 8-9-77 |         |              |      |     |
| Nº. S0-1256 |        |         | BLOCK DIARMA |      |     |
| REPLACED BY |        |         |              |      |     |
| REPLACING   |        |         |              |      |     |

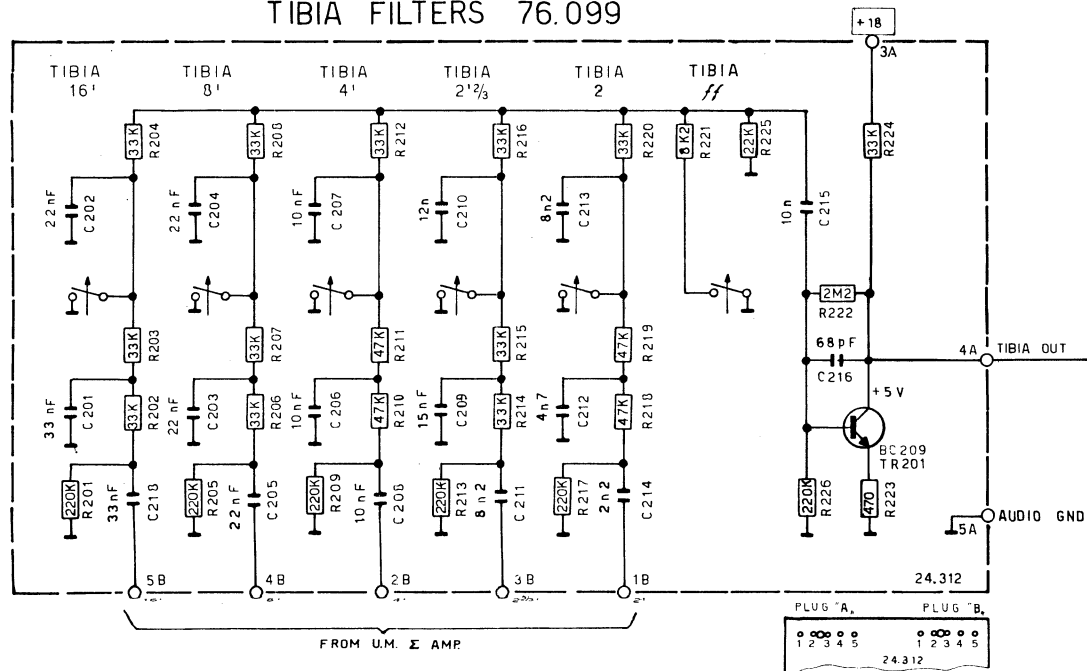




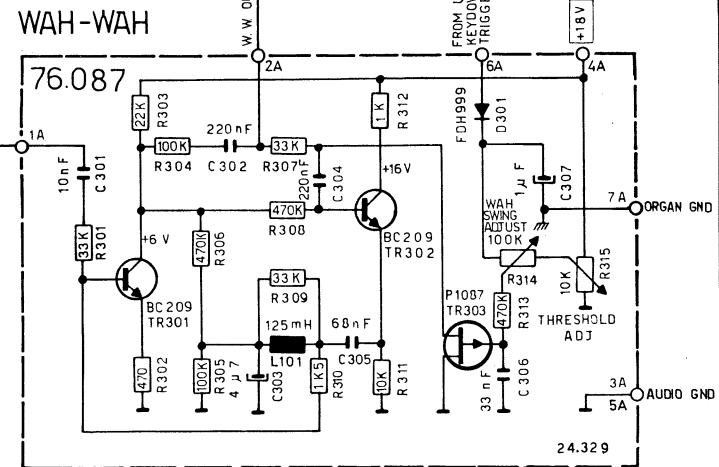
SOLO FILTERS 76.101



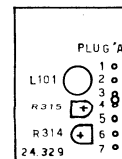
## TIBIA FILTERS 76.099



WAH-WAH

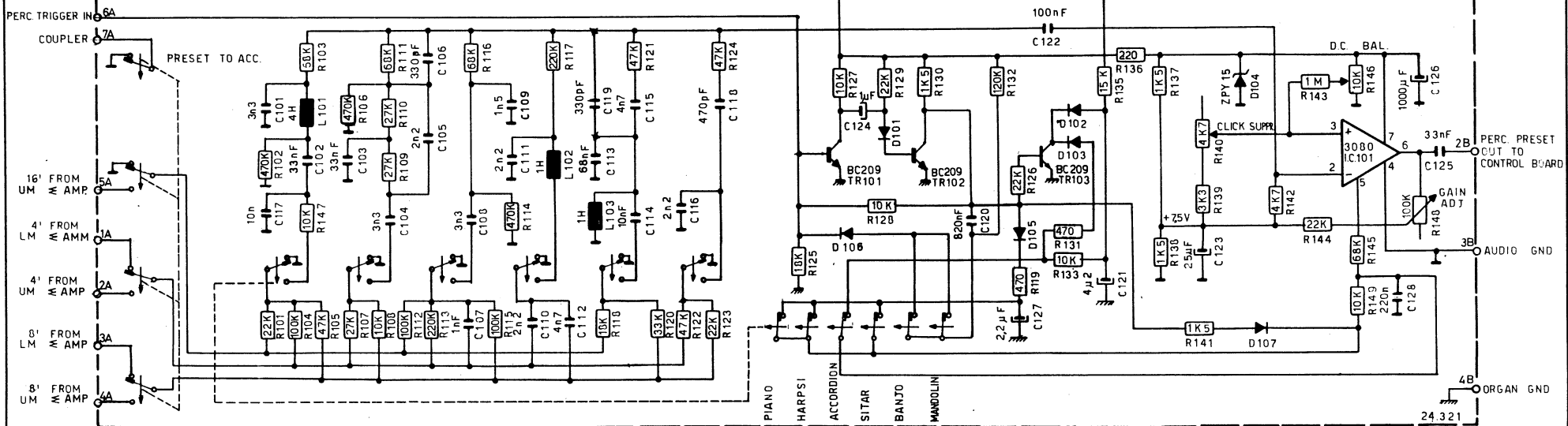


NOTES: 1-ALL RESISTORS 1/4 WATT UNLESS OTHERWISE SPECIFIED.  
2-ALL TABSWITCHES SHOWN IN OFF POSITION  
3-ALL VOLTAGES MEASURED WITH 20,000 OHM/V VOLT METER WITHOUT SIGNAL.

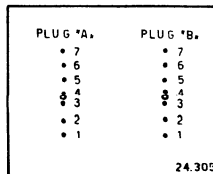
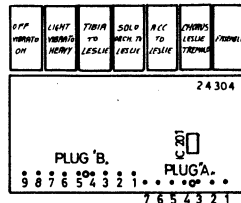
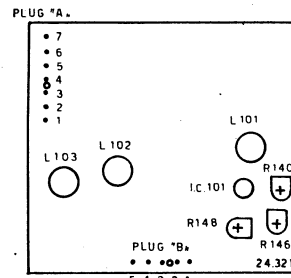
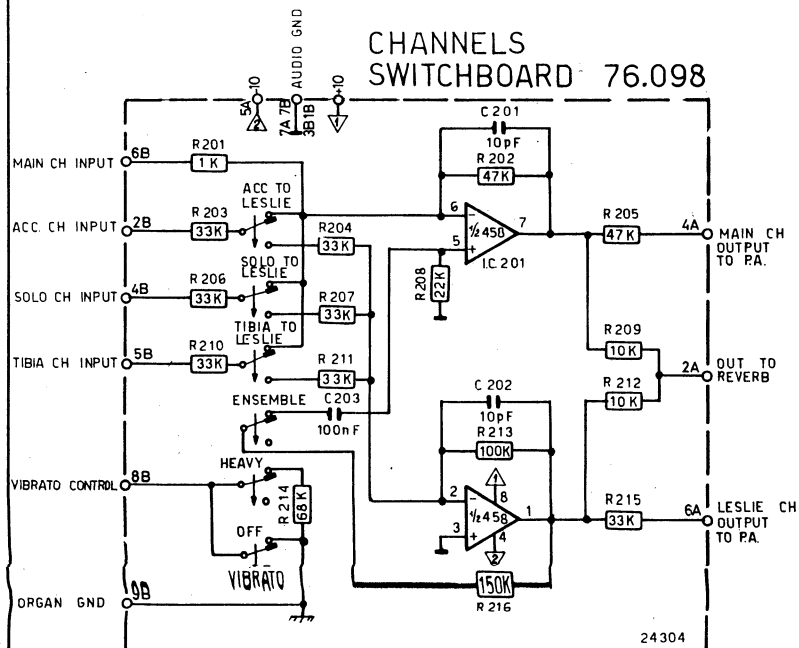


|                   |                         |   |   |
|-------------------|-------------------------|---|---|
| DATA              | SIGLA                   | Used on<br>F 50                               | <div>DDR</div> <div>MONDAINO (FO)</div> |
| DIREZIONE         | 16/12/76                |   |   |
| CONTR.            | FF-1176                 |   |   |
| VISTO             | F.1.17<br>G. 24<br>C.R. |   |   |
| N.° SO - 1197     |                         | SOLO AND TIBIA FILTERS,<br>WAH WAH SCH. DIAG. |   |
| MATERIALE         |                         |   |   |
| SOSTITUISCE K. R. |                         |   |   |
| SOSTITUITO DAL R. |                         |   |   |

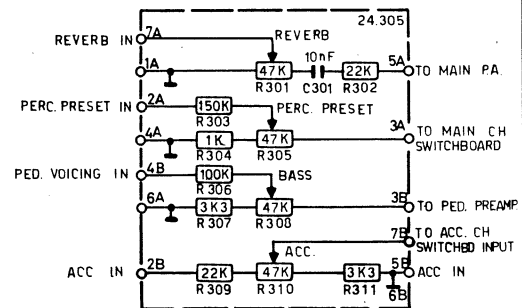
## PERCUSSION PRESET VOICING 76.103



CHANNELS  
SWITCHBOARD 76.098



## CONTROL BOARD 76.096

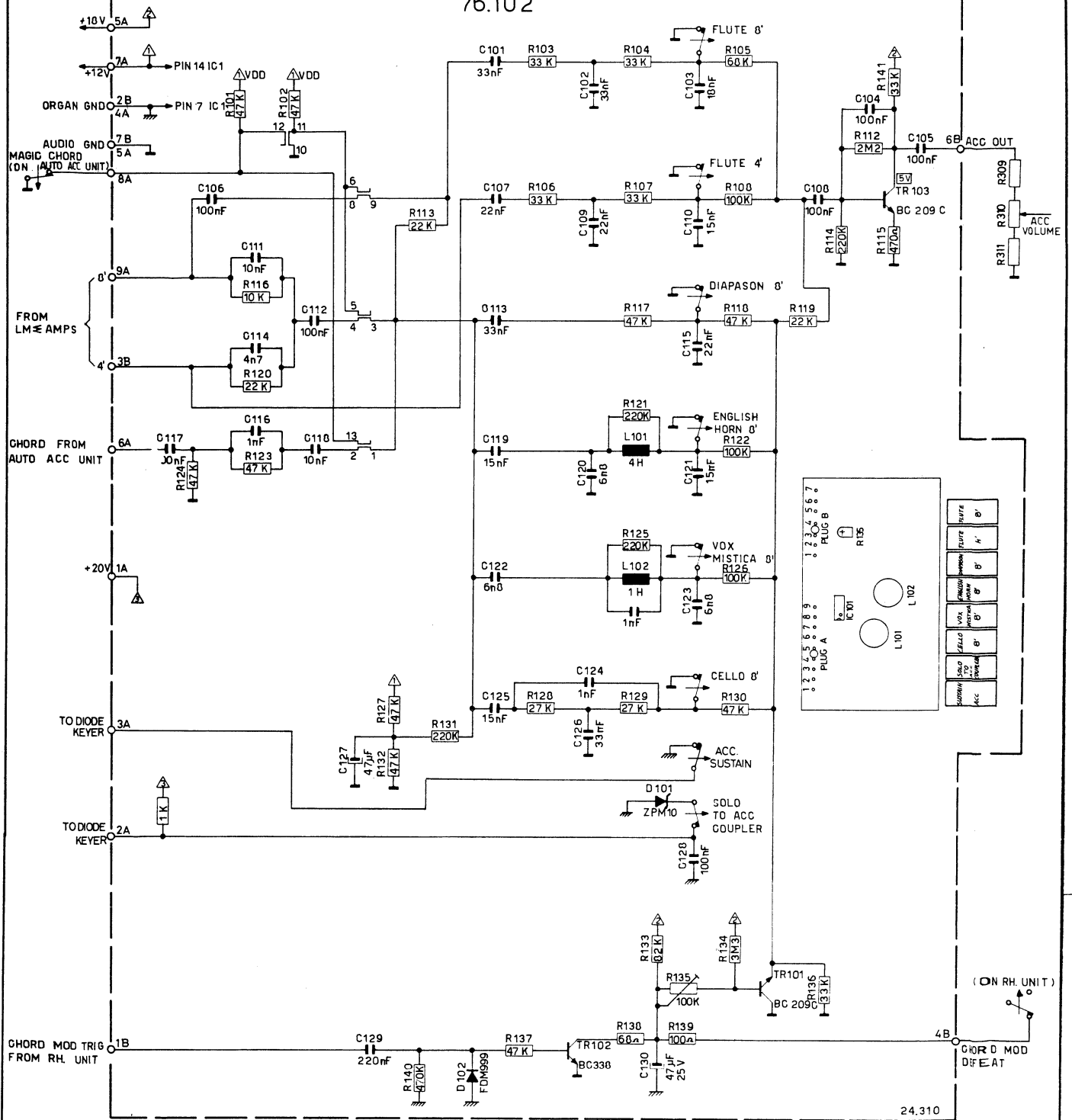


NOTES: 1-ALL RESISTORS 1/4 WATT UNLESS OTHERWISE SPECIFIED.  
2-ALL TABSWITCHES SHOWN IN OFF POSITION.  
3-ALL DIODES FDH999 UNLESS OTHERWISE SPECIFIED.  
4-ALL VOLTAGES MEASURED WITH 20000 OHM/V VOLT METER WITHOUT SIGNAL.

|                     |        |          |   |  |
|---------------------|--------|----------|---|--|
| DATA                |        | SSLA     | used on   | <div> <div>DDR</div> <div>MONDAING (FO)</div> </div> |
| DIREC.              | 29776  | 10/11/71 |   |  |
| CONT.               | 5-1-71 | 10/11/71 | F 50  |  |
| VISIO               | 29775  | 10/11/71 |   |  |
| N° 50 - 1200        |        |          | PERCUSSION PRESET VOICING CHANNELS SWITCHBOARD CONTROL BOARD SCH. DIAG. |  |
| MATERIALS           |        |          | TRAITEMENTS:  |  |
| SUSSTITUTIONS N° N° |        |          |   |  |
| SUSSTITUTIONS N° N° |        |          |   |  |

# LOWER M. VOICING

76.102

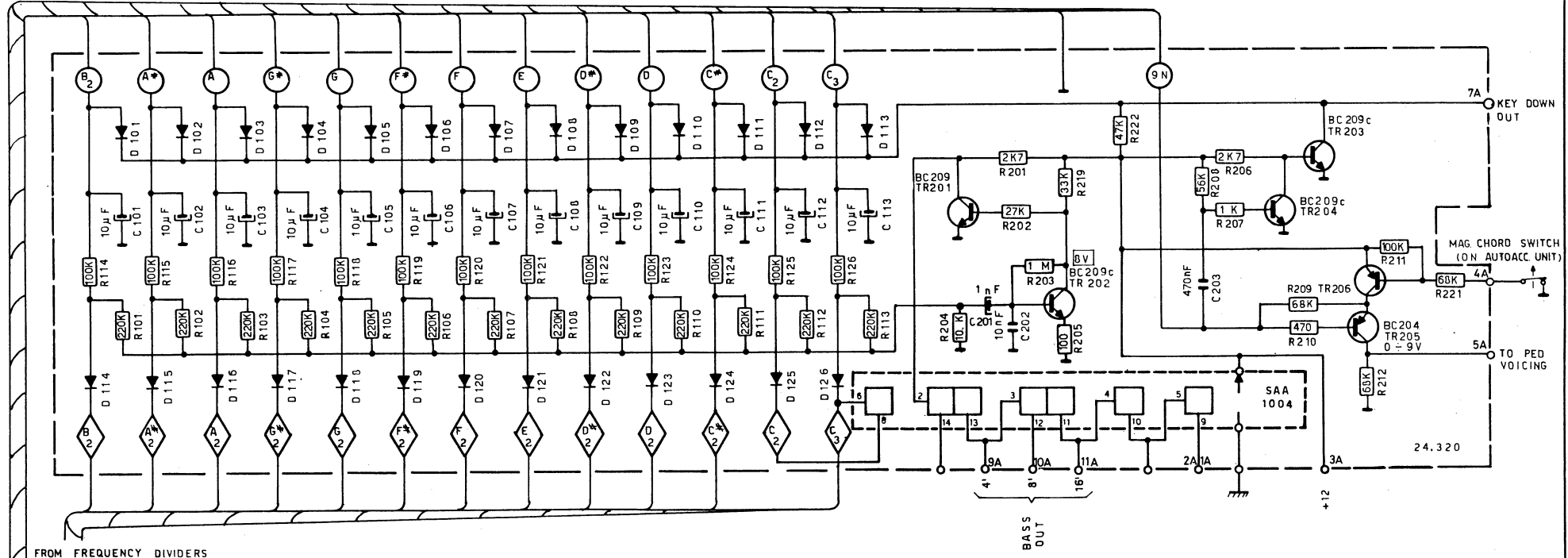
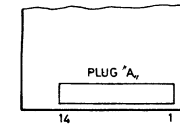


5)  $\Delta$  +20V  
 4)  $\Delta$  +18V  
 3)  $\Delta$  +12V  
 2) ALL RESISTORS 1/4W UNLESS OTHERWISE SPECIFIED  
 NOTES: 1) ALL VOLTAGES MEASURED WITH 20000 OHM/V VOLTMETER WITHOUT SIGNAL

| MOD. N°           | DESCRIZIONE | DATA       | RELA | SCALA | NOTE | USATO ON | RT                   | RELA |
|-------------------|-------------|------------|------|-------|------|----------|----------------------|------|
| DISEG.            | 11/5/77     | A. Sordani |      |       |      | F 50     |                      |      |
| CONTR.            | 5-F-FF      | X. Sordani |      |       |      |          |                      |      |
| VISTO             | 7-F-FF      | X. Sordani |      |       |      |          |                      |      |
| N° 50-1185        |             |            |      |       |      |          | LOWER MANUAL VOICING |      |
| MATERIALE         |             |            |      |       |      |          | SOSTITUISCE IL N°    |      |
| SOSTITUITO DAL N° |             |            |      |       |      |          | TRATTAMENTO:         |      |

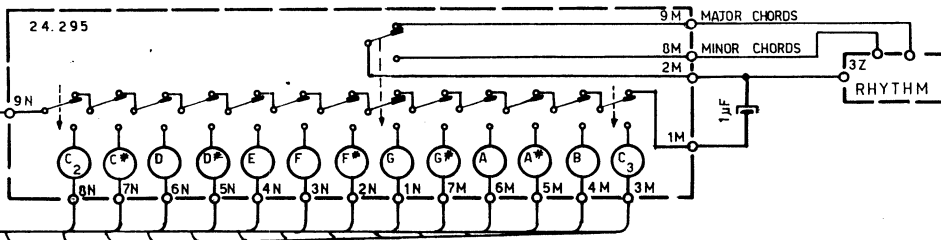


# PEDAL GATE 74.242



FROM FREQUENCY DIVIDERS

## PEDAL KEY SWITCHES 79.013



- NOTES: 1- ALL RESISTORS 1/4 WATT UNLESS OTHERWISE SPECIFIED.  
2- ALL DIODES FDH 999 UNLESS OTHERWISE SPECIFIED.  
3- ALL VOLTAGES MEASURED WITH 20,000 OHM/V VOLTMETER WITHOUT SIGNAL.

| DIREZ.             | DATA   | SIGLA   | used on                                      | DDR<br>MONDINO (FO) |
|--------------------|--------|---------|--|---------------------|
| CONTR.             | 5-7-77 | A. Cap. | F 50   |                     |
| VISTO              | 7-7-77 | U. Cap. |  |                     |
| N.° SO - 1198      |        |         | PEDAL GATE AND PEDAL KEY SWITCHES SCH. DIAG. |                     |
| MATERIALE          |        |         |  |                     |
| SOSTITUIRE IL N.°  |        |         |  |                     |
| SOSTITUITO DAL N.° |        |         | TRATTAMENTO:                                 |                     |

PLUG

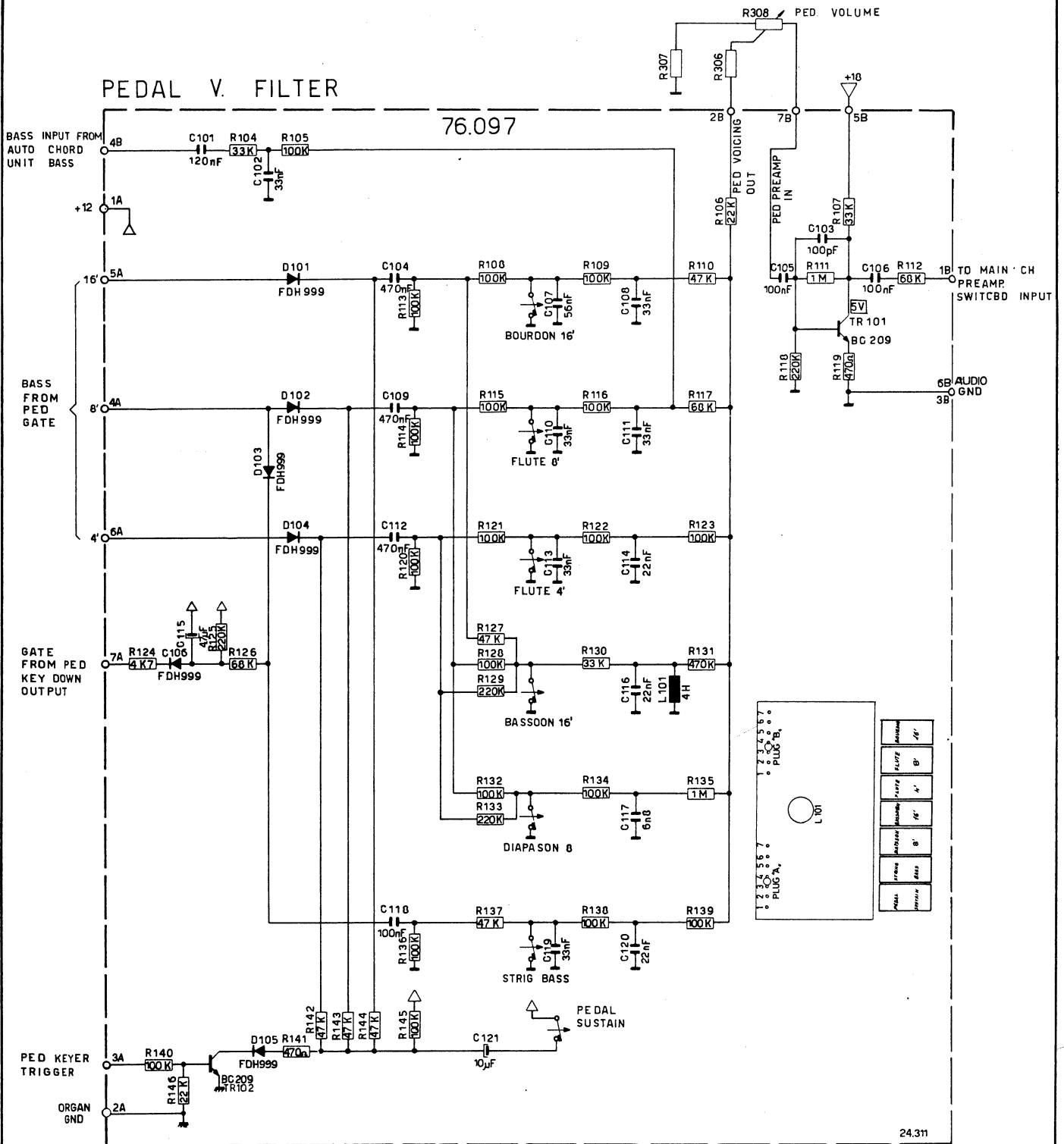
987654321

PLUG

987654321

1177/A

# PEDAL V. FILTER



NOTES: 1) ALL RESISTORS  $\frac{1}{4}$ W UNLESS OTHERWISE SPECIFIED  
2 ALL VOLTAGES MEASURED WITH 20000 OHM V VOLT METER WITHOUT SIGNAL.

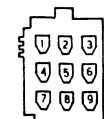
| MOD. N.           | DESCRIZIONE | DATA    | SILA    | SCALA   | NOTE                    | USATO | SILA |
|-------------------|-------------|---------|---------|---------|-------------------------|-------|------|
| DISEGN.           | 10/5/77     | 10/5/77 | 10/5/77 | 10/5/77 | Used on                 | F50   |      |
| CONTR.            | 5-7-77      | 5-7-77  | 5-7-77  | 5-7-77  |                         |       |      |
| VISTO             | 7-7-77      | 7-7-77  | 7-7-77  | 7-7-77  |                         |       |      |
| N.                | SO-1230     |         |         |         | PEDAL VOICING F. FILTER |       |      |
| MATERIALE         |             |         |         |         |                         |       |      |
| SOSTITUIRE IL N.  |             |         |         |         |                         |       |      |
| SOSTITUITO DAL N. |             |         |         |         |                         |       |      |



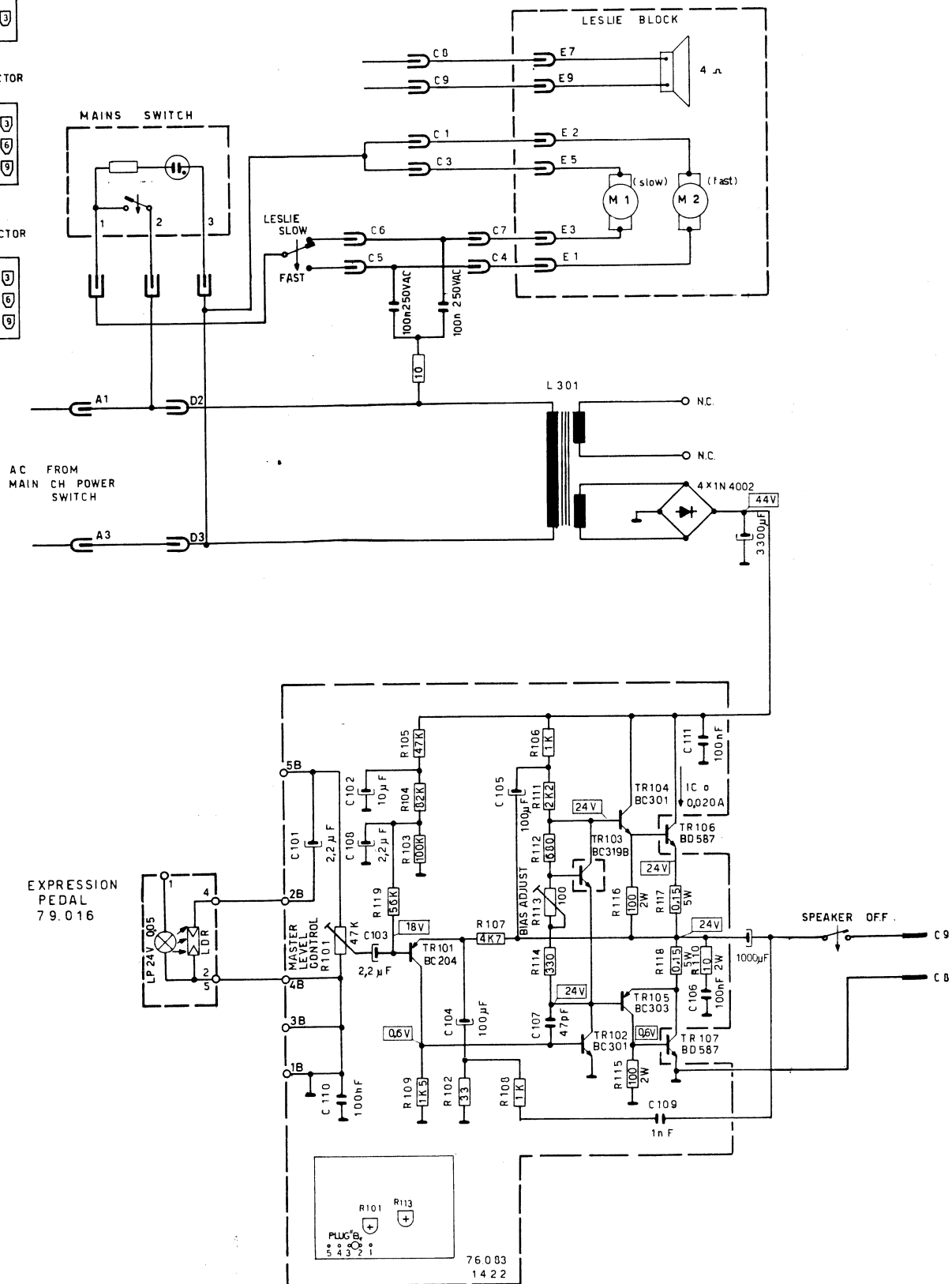
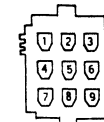
### D CONNECTOR




## CONNECTOR

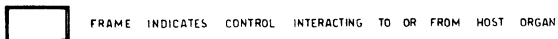


### E CONNECTOR



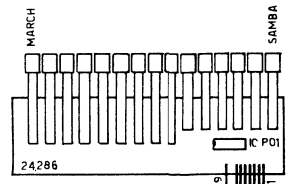
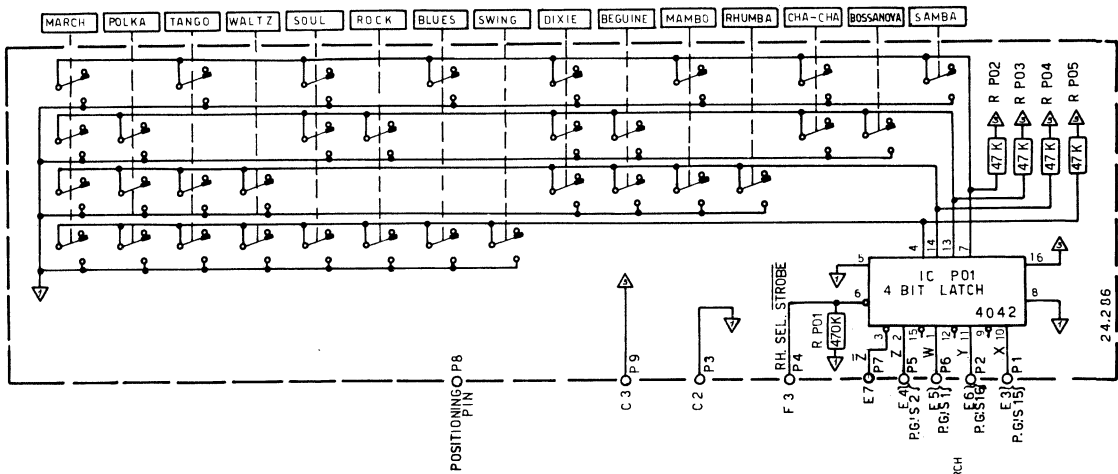
2) ALL VOLTAGES MEASURED WITH 20000 OHM/V VOLT METER WITHOUT SIGNAL

|                    |        |      |        |             |                   |  |  |       |  |
|--------------------|--------|------|--------|-------------|-------------------|--|--|-------|--|
| MOD. N.°           |        |      |        | DESCRIZIONE |                   | GRATA  |  | SIGLA |  |
|                    |        | DATA | SIGLA  | SCALA       | NOTE              | Used on  |  |       |  |
| DISEGN.            | 17-574 |      | Tahiti |             | F40               | <br>DEUTSCHE DEMOKRATISCHE REPUBLIK<br>NO ONSAINDO (FD) |  |       |  |
| CONTR.             | 5-2-12 |      | Comp.  |             | F50               |  |  |       |  |
| VISTO              | 73 F3  |      | Ch.    |             |                   |  |  |       |  |
| N.° SO - 1222      |        |      |        |             | 25 W.P.A. LESL IE |  |  |       |  |
| MATERIALE          |        |      |        |             |                   |  |  |       |  |
| SOSTITUISCE IL N.° |        |      |        |             |                   |  |  |       |  |
| SOSTITUITO DAL N.° |        |      |        |             | TRATTAMENTO:      |  |  |       |  |

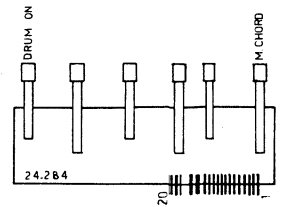
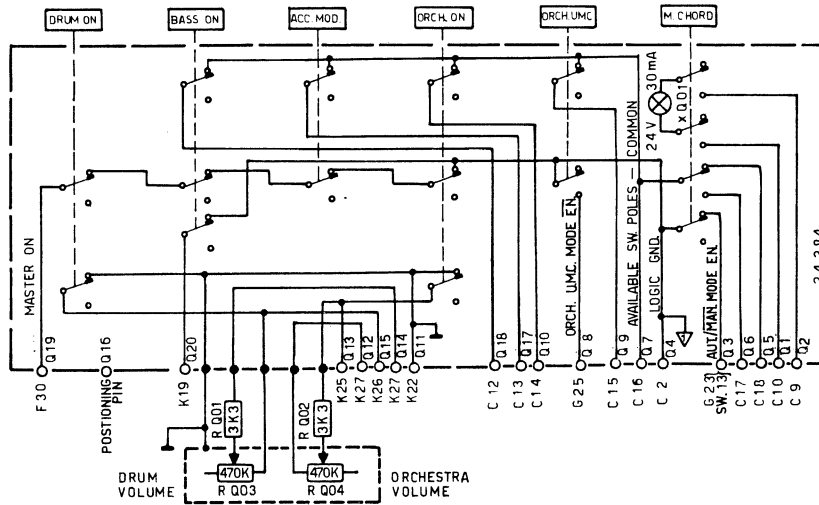


| MOD. N°           | DESCRIZIONE | DATA          | SIGLA |
|-------------------|-------------|---------------|-------|
| DATA              |             |               |       |
| DISSEN.           | 26.8.76     |               |       |
| CONTS.            | 54.874      |               |       |
| VISTO             | 12.9.76     |               |       |
| N°                | SO - 1187   | BLOCK DIAGRAM |       |
| MATERIALE         |             |               |       |
| SOSTITUISCE IL N° |             |               |       |
| SOSTITUITO DAL N° |             | TRATTAMENTO:  |       |

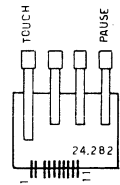
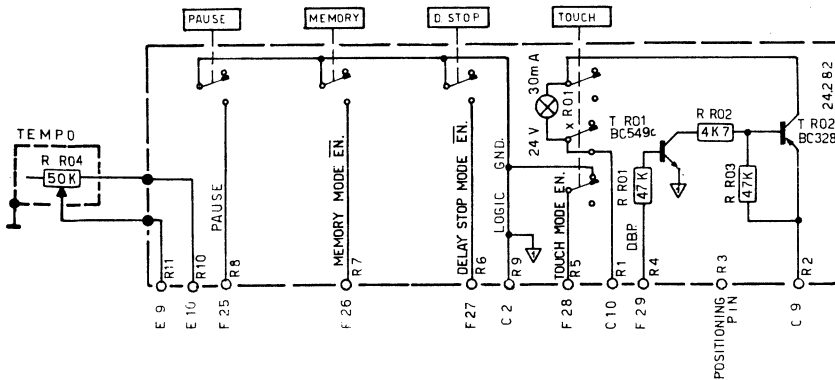
# 75.036 RHYTHM SEL. KEYBD.



## 75.029 (Part of) ACC. MODE SEL. KEYBD.



## 75.029 (Part of) OPERATIVE MODE SEL. KEYBD.



NOTES: 1)  $\nabla$  LOGIC GND. (-12)

2)  $\Delta$  +VDD C MOS

3) ALL RESISTORS 1/4 WATT UNLESS OTHERWISE SPECIFIED.

4) ALL TABSWITCHES SHOWN IN OFF POSITION.

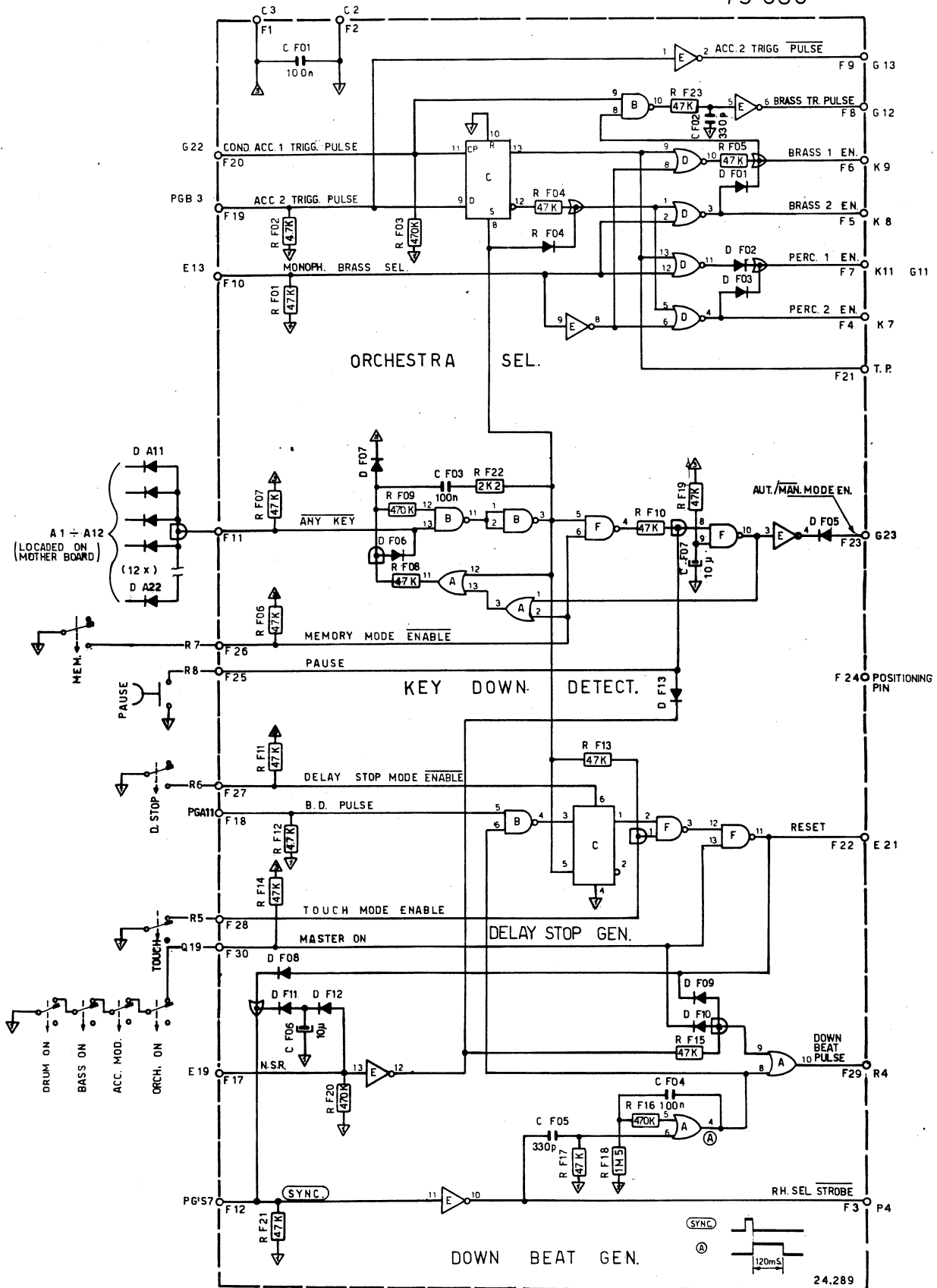
5) ALL VOLTAGES MEASURED WITH RESPECT TO  $\Delta$ , WHICH IS CONNECTED TO ORGAN GENERATOR +VCC

6)  $\perp$  ORGAN GND.

| MOD. N°           | DESCRIZIONE | DATA     | RELA     |
|-------------------|-------------|----------|----------|
| 31195             | 31195       | 15/11/76 | 15/11/76 |
| CONTR.            | CONTR.      | 15/11/76 | 15/11/76 |
| VISTO             | VISTO       | 15/11/76 | 15/11/76 |
| N°                | 50-1190     | CONTROL  | AN EL.   |
| MATERIALE         |             |          |          |
| SOSTITUISCE IL N° |             |          |          |
| SOSTITUITO DAL N° |             |          |          |

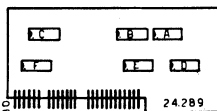


75 030



## NOTES:

- 1 - A = IC F01 = 4071 14 7  
 2 - B = IC F02 = 4011 14 7  
 3 - C = IC F03 = 4013 14 7  
 4 - D = IC F04 = 4001 14 7  
 5 - E = IC F05 = 4069 14 7  
 6 - F = IC F06 = 4011 14 7  
 7 -  $\nabla$  LOGIC GND (-12)  
 8 -  $\Delta$  +VDD CMDS  
 9 - ALL RESISTORS 1/4 WATT UNLESS OTHERWISE SPECIFIED.  
 10 - ALL DIODES FDH999 UNLESS OTHERWISE SPECIFIED.  
 11 - ALL VOLTAGES MEASURED WITH RESPECT TO  $\Delta$  WHICH IS CONNECTED TO ORGAN GENERATOR +VCC

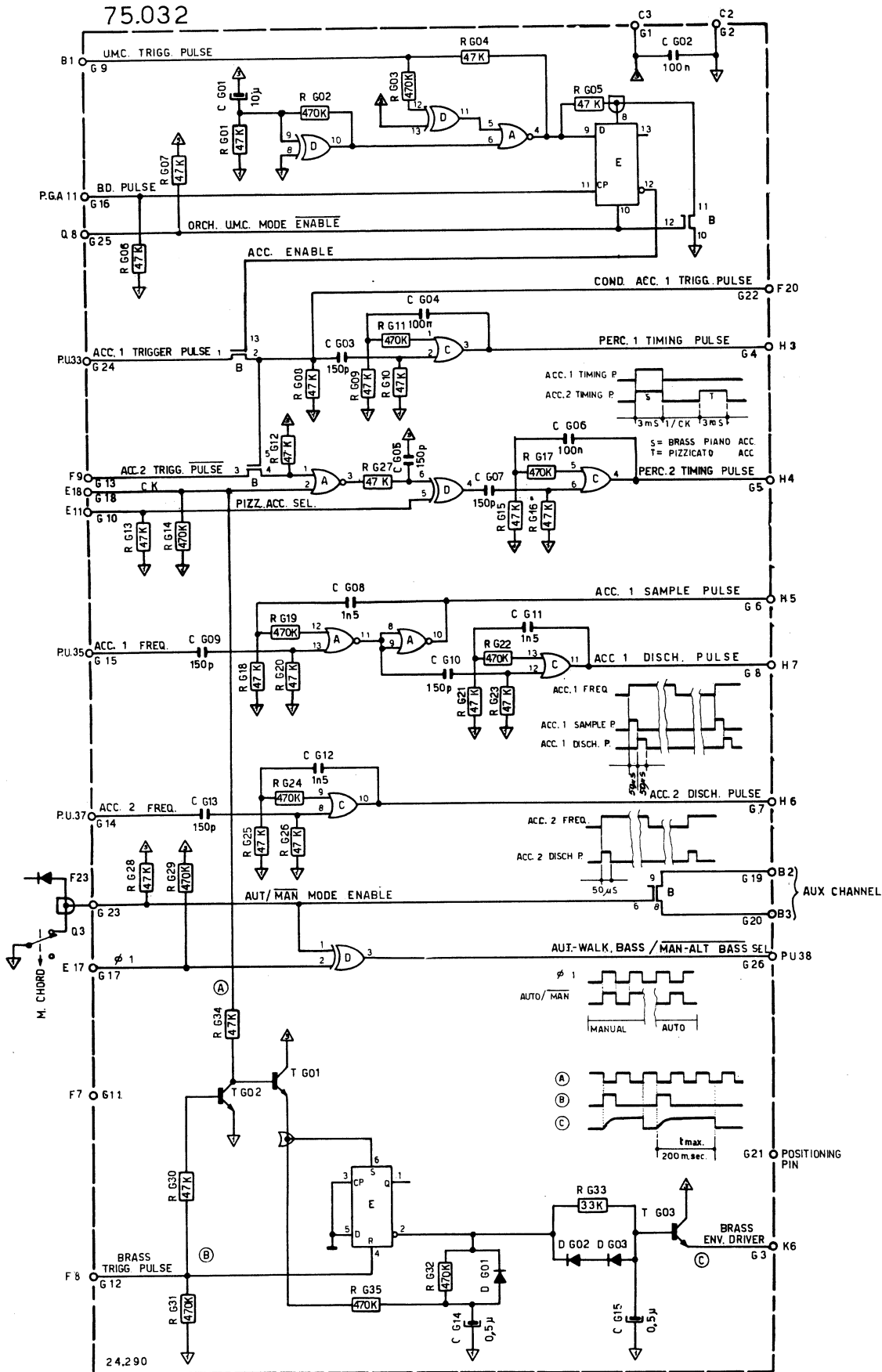


| MOD. N°           | DESCRIPTION | DATA  | SCALA | NOTE used on:     | DATA | SCALA |
|-------------------|-------------|-------|-------|-------------------|------|-------|
| 25 476            | 75 030      | 120ms | 120ms | THE PERFORMER     |      |       |
| CONTR. 19/4/76    | 120ms       |       |       |                   |      |       |
| VISIO 12/11/76    | 120ms       |       |       |                   |      |       |
| N° S0-1160        |             |       |       | MODE CONDITIONING |      |       |
| MATERIALE         |             |       |       |                   |      |       |
| SOSTITUIRE IL N°  |             |       |       |                   |      |       |
| SOSTITUITO DAL N° |             |       |       |                   |      |       |
| TRATTAMENTO:      |             |       |       |                   |      |       |

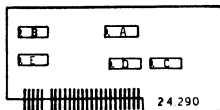
**DDR**  
MONDINO (FO)



75.032

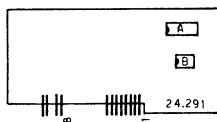
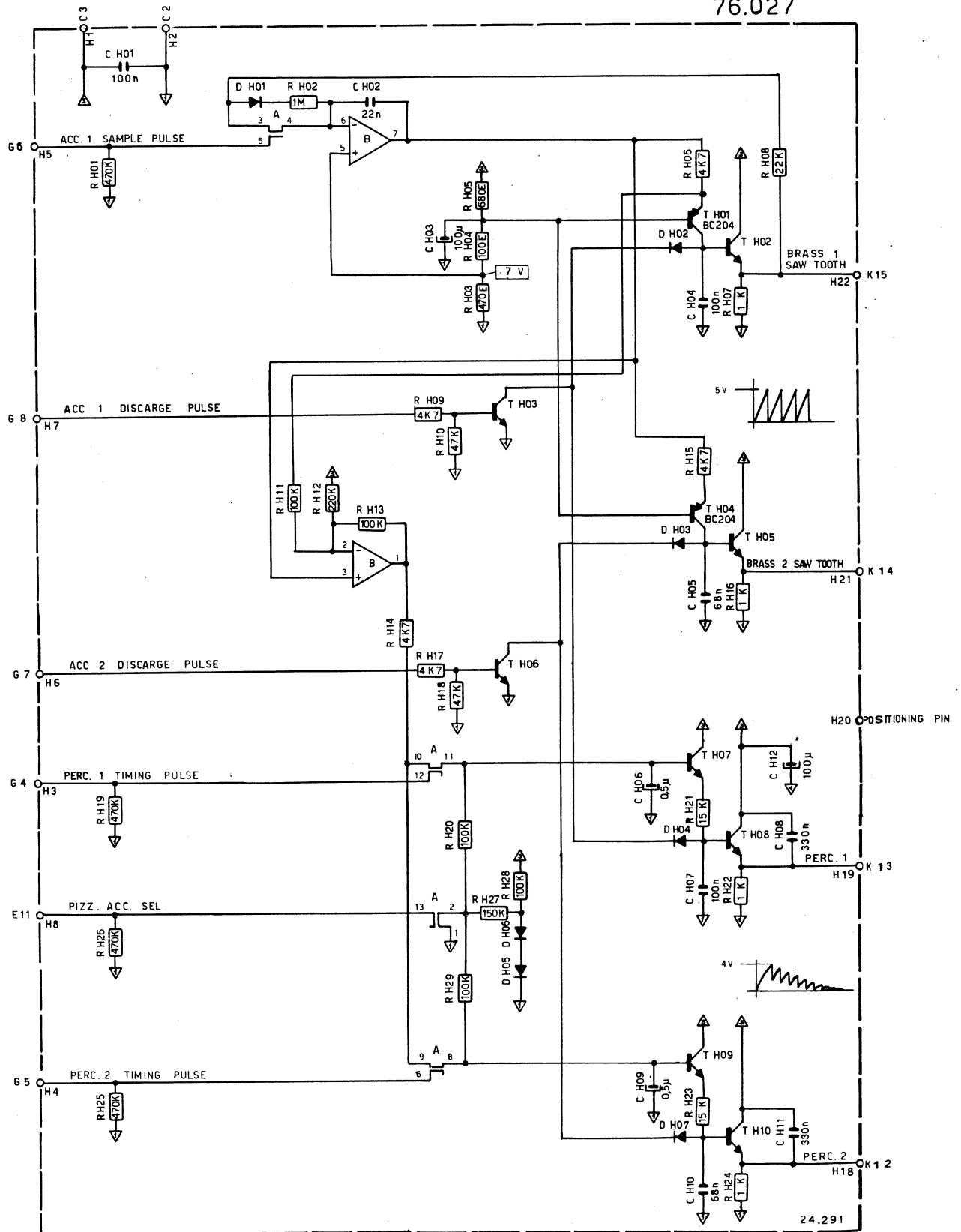


- NOTES:
- 1 - A = IC G02 = 4001 14 7
  - 2 - B = IC G04 = 4016 14 7
  - 3 - C = IC G05 = 4071 14 7
  - 4 - D = IC G01 = 4030 14 7
  - 5 - E = IC G03 = 4013 14 7
  - 6 - LOGIC GND (-12)
  - 7 - +VDD CMOS
  - 8 - ALL RESISTORS 1/4 UNLESS OTHERWISE SPECIFIED.
  - 9 - ALL TRANSISTORS ARE BC549c UNLESS OTHERWISE SPECIFIED.
  - 10 - ALL DIODES ARE FDH999 UNLESS OTHERWISE SPECIFIED.
  - 11 - ALL VOLTAGES MEASURED WITH RESPECT TO  $\Delta$  WHICH IS CONNECTED TO ORGAN GENERATOR +VCC



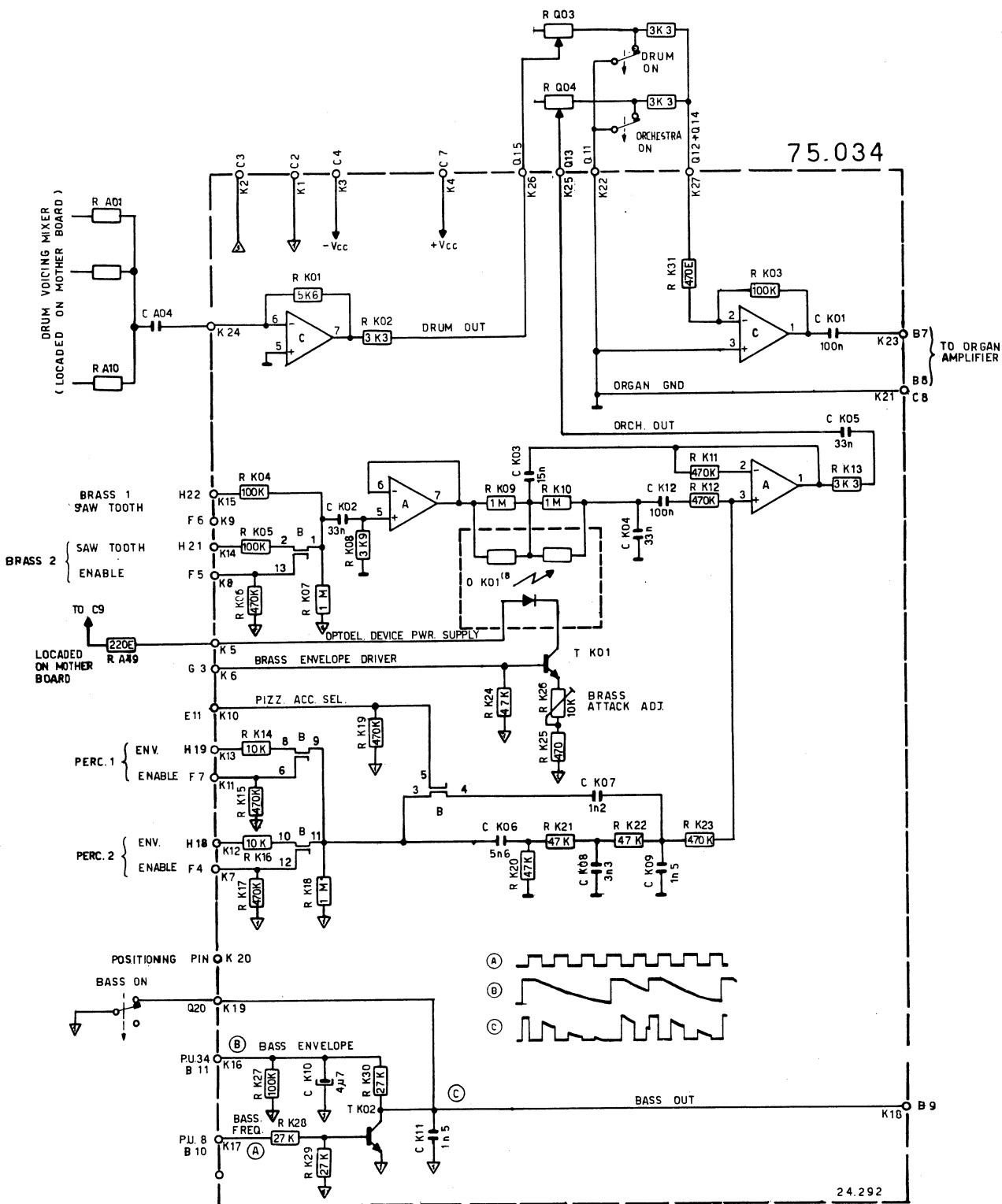
| DES. N°            | DESCRIZIONE | DATA | ESLA | SCALE | NOTE used on  | DATA | ESLA |
|--------------------|-------------|------|------|-------|---------------|------|------|
| DESIGN.            | 26.8.74     |      |      |       | THE PERFORMER |      |      |
| CONTR.             | 19/10/74    |      |      |       |               |      |      |
| VISTO              | 22/11/74    |      |      |       |               |      |      |
| N°                 | SO - 1158   |      |      |       | ONE SHOT      |      |      |
| MATERIALE          |             |      |      |       |               |      |      |
| SOSTITUZIONE N. N° |             |      |      |       |               |      |      |
| SOSTITUITO DAL N°  |             |      |      |       |               |      |      |

76.027



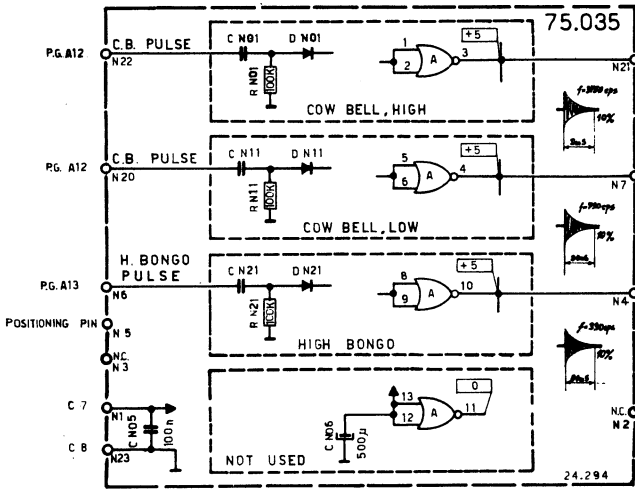
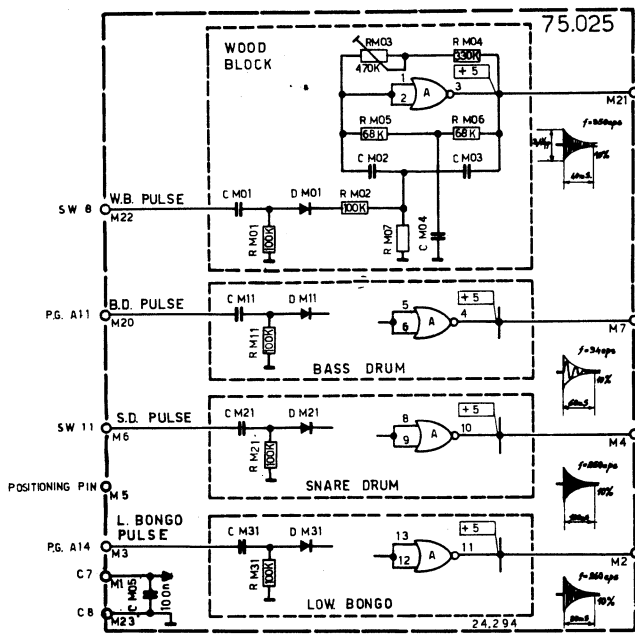
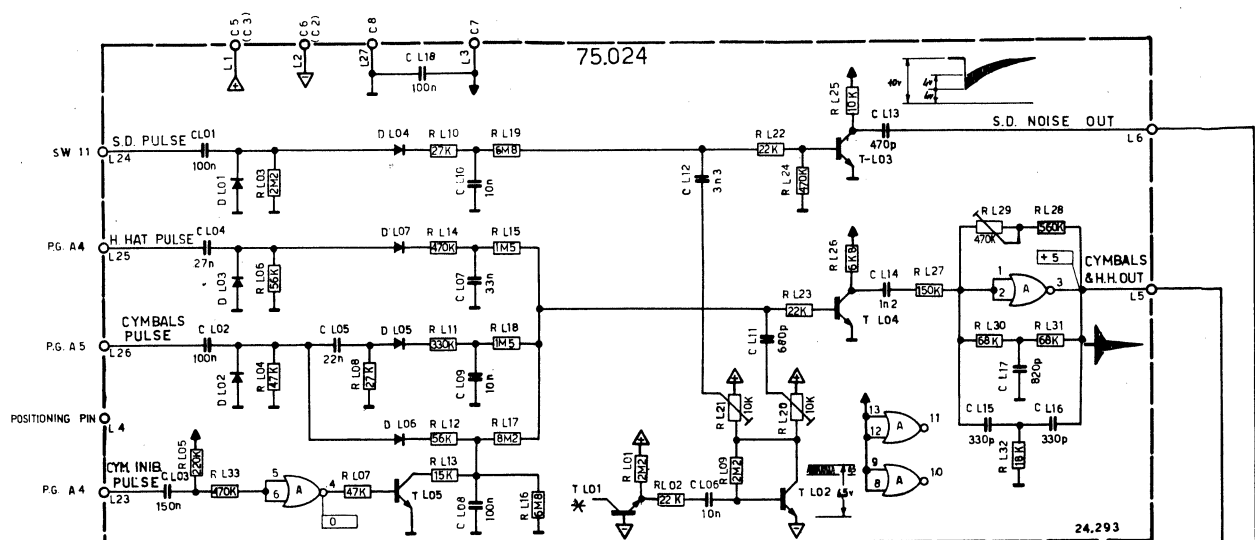
- VSS or -Vcc - VDD or +Vcc
- NOTES: 1 - A = IC H01 = 4016 pin 7 pin 14  
 2 - B = IC H02 = 1458 pin 4 pin 8  
 3 -  $\nabla$  LOGIC GND (-12)  
 4 -  $\Delta$  +VDD CMOS  
 5 - ALL RESISTORS 1/4 WATT UNLESS OTHERWISE SPECIFIED.  
 6 - ALL DIODES FDH999 UNLESS OTHERWISE SPECIFIED  
 7 - ALL TRANSISTORS ARE BC549c UNLESS OTHERWISE SPECIFIED.  
 8 - ALL VOLTAGES MEASURED WITH RESPECT TO  $\Delta$  WHICH IS CONNECTED TO ORGAN GENERATOR + VCC

| MOD. N°           | DESCRIZIONE | DATA                 | ESLA     |
|-------------------|-------------|----------------------|----------|
| DIRIGN.           | 27/8/16     | 16/10/16             | 16/10/16 |
| CONTR.            | 27/11/16    | 16/10/16             | 16/10/16 |
| VISTO             | 27/11/16    | 16/10/16             | 16/10/16 |
| N° S0 - 1157      |             | SAW TOOTH GENERATION |          |
| MATERIALE         |             | TRATTAMENTO          |          |
| SOSTITUISCE IL N° |             |                      |          |
| SOSTITUITO DAL N° |             |                      |          |



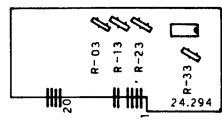
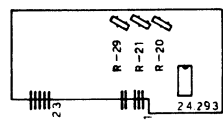
- NOTES:
- |  |                                     |                                     |
|--|-------------------------------------|-------------------------------------|
| 1 - A = IC K01 = 1458                                      | V <sub>ss</sub> or -V <sub>cc</sub> | V <sub>dd</sub> or +V <sub>cc</sub> |
| 2 - B = IC K02 = 4015                                      | 4                                   | 8                                   |
| 3 - C = IC K03 = 1458                                      | 7                                   | 14                                  |
| 4 - LOGIC GND (-12)  | 4                                   | 8                                   |
| 5 - +VDD CMOS  |                                     |                                     |
| 6 - ALL RESISTORS 1/4 WATT UNLESS OTHERWISE SPECIFIED.     |                                     |                                     |
| 7 - ALL TRANSISTORS ARE BC549C UNLESS OTHERWISE SPECIFIED. |                                     |                                     |
| 8 - O K01 = FACTORY SELECTED DEVICE 08.014                 |                                     |                                     |

| MOD. N°            | DESCRIZIONE | DATA                       | RELA |
|--------------------|-------------|----------------------------|------|
| 27876              | Tab. 2      |                            |      |
| 14/10/76           | 07.08.01    |                            |      |
| 21/11/76           | 12          |                            |      |
| N°                 | SO-1191     | NOTE used on THE PERFORMER |      |
| MATERIALE          |             | ORCHESTRA WICING FILTER    |      |
| SOSTITUIBILE IL N° |             | TRATTAMENTO:               |      |
| SOSTITUITO DAL N°  |             |                            |      |



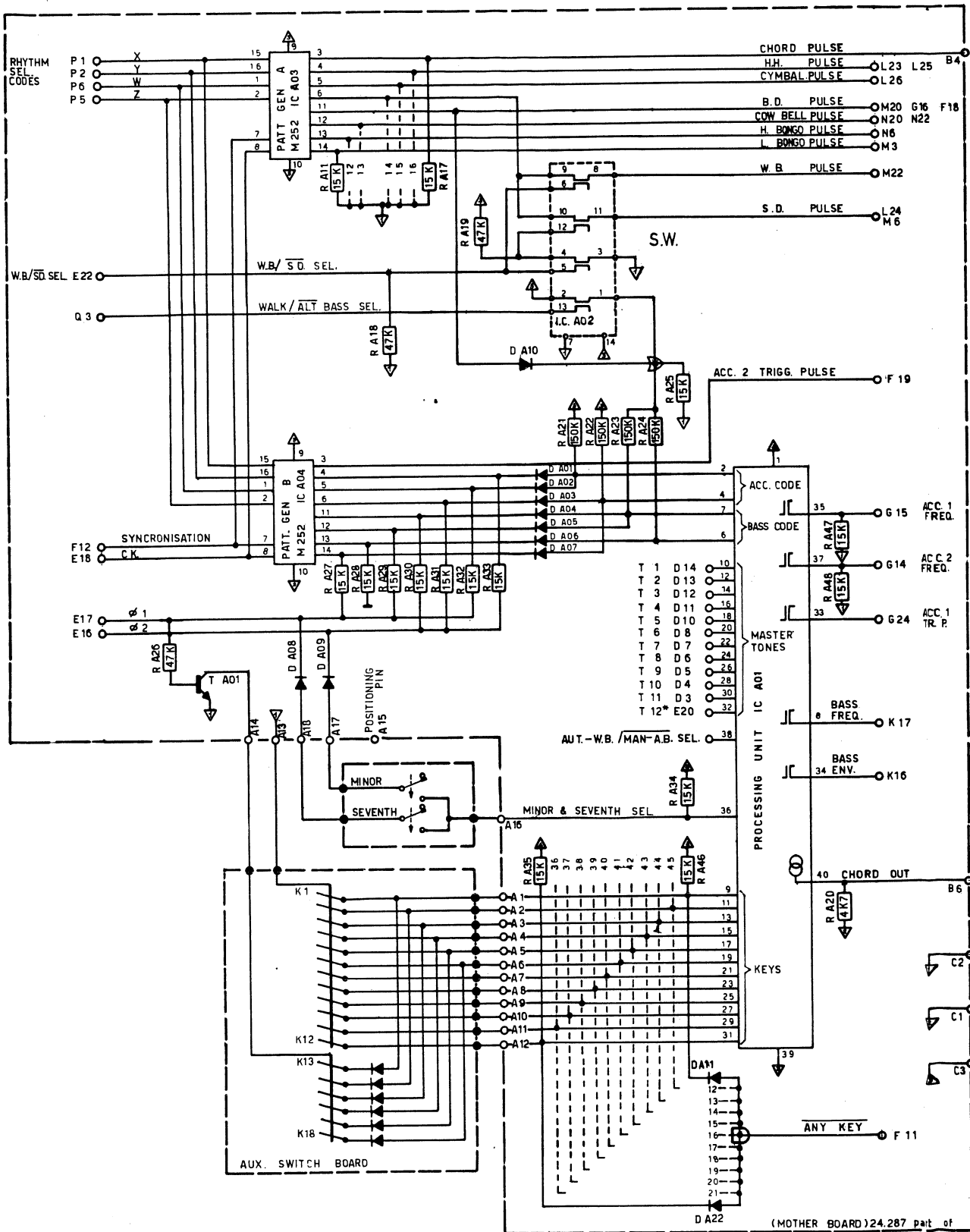
|                |               |              |               |               |              |
|----------------|---------------|--------------|---------------|---------------|--------------|
| WOOD BLOCK     | C M01<br>100n | R M07<br>18K | C M02<br>2n7  | C M03<br>2n7  | C M04<br>12n |
| BASS DRUM      | C M11<br>220n | R M17<br>18K | C M12<br>33n  | C M13<br>33n  | C M14<br>68n |
| SNARE DRUM     | C M21<br>100n | R M27<br>15K | C M22<br>12n  | C M23<br>12n  | C M24<br>39n |
| LOW BONGO      | C M31<br>100n | R M37<br>18K | C M32<br>10n  | C M33<br>12n  | C M34<br>33n |
| COW BELL, HIGH | C N01<br>100n | R N07<br>18K | C N02<br>680p | C N03<br>680p | C N04<br>3n3 |
| COW BELL, LOW  | C N11<br>100n | R N17<br>18K | C N12<br>3n9  | C N13<br>3n9  | C N14<br>10n |
| HIGH BONGO     | C N21<br>100n | R N27<br>18K | C N22<br>8n2  | C N23<br>8n2  | C N24<br>33n |

- 1-A# IC L01, IC M01, IC N01 = MOTOROLA DEVICE M14001CP.
- 2-ALL TRANSISTORS ARE BC549C OR EQUIVALENT UNLESS OTHERWISE SPECIFIED.
- 3-ALL DIODES FDH999 UNLESS OTHERWISE SPECIFIED.
- 4-ALL RESISTORS 1/4 WATT UNLESS OTHERWISE SPECIFIED.
- \* FACTORY SELECTED.
- 15V FLOTTING SUPPLY
- + PREAMP. Vcc
- ORGAN GND
- 5- ALL VOLTAGES MEASURED WITH 20000 OHM/V VOLTMETER WITHOUT SIGNAL. WITH VOLTAGE TO ORGAN GND UNLESS OTHERWISE SPECIFIED.




|                            |             |                    |          |
|----------------------------|-------------|--------------------|----------|
| 1 CN 24 DA 27n DIVENTA 33n |             | 2 1-9-77           |          |
| MOD. N°                    | DESCRIZIONE | DATA               | DELLA    |
| DESIGN.                    | DATA        | DELLA              | DELLA    |
| CONTE.                     | 11/11/77    | 11/11/77           | 11/11/77 |
| VOTO                       | 11/11/77    | 11/11/77           | 11/11/77 |
| N° 50-1192                 |             | DRUM VOICING       |          |
| MATERIALE                  |             | TRATTAMENTO        |          |
| SOSTITUZIONE R. N°         |             | SOSTITUZIONE R. N° |          |
| SOSTITUITO DAL N°          |             | SOSTITUITO DAL N°  |          |

MOTHER BOARD 75.031 (part of)



- NOTES :
- 1- PU IC A01= M251AB
  - 2- SW IC A02= A016
  - 3- PG A IC A03= M252AB
  - 4- PG B IC A04= M252AC
  - 5- ▽ LOGIC GND (-12)
  - 6- ▽ -Vdd MOS (-15)
  - 7- ▽ +Vdd CMOS (VRel)
  - 8- ALL RESISTORS 1/4 WATT UNLESS OTHERWISE SPECIFIED
  - 9- ALL DIODES FDH999 UNLESS OTHERWISE SPECIFIED.
  - 10- ALL TRANSISTORS ARE BC549c UNLESS OTHERWISE SPECIFIED.
  - 11- ALL VOLTAGES MEASURED WITH RESPECT TO WHICH IS CONNECTED TO ORGAN GENERATOR + VCC.

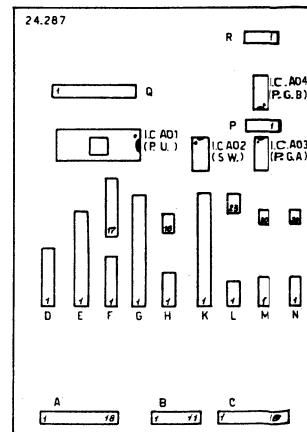
| DOC. N°            | DESCRIPTION |          |       | DATE                        |           | DATA  | DELA |
|--------------------|-------------|----------|-------|-----------------------------|-----------|---|------|
|                    | DATA        | DELA     | PCALA | NOTE                        | used on   |  |      |
| DISEG.             | 25/03/76    | 25/03/76 |       | THE                         | PERFORMER |   |      |
| COFFR.             | 25/03/76    | 25/03/76 |       |                             |           |   |      |
| VISTO              | 25/03/76    | 25/03/76 |       |                             |           |   |      |
| N°                 | 50 - 1199   |          |       | PROCESSING UNIT ADDRESSING. |           |   |      |
| MATERIALE          |             |          |       |                             |           |   |      |
| CONTENUTORE N. N°  |             |          |       |                             |           |   |      |
| CONTENUTORE DAL N° |             |          |       | TRATTAMENTO:                |           |   |      |

| PIN.<br>N° | " A " CONN.<br>KEYS  | PIN.<br>N° | " B " CONN.<br>OUTPUTS | PIN.<br>N° | " C " CONN.<br>POWER SUPPLIES | PIN.<br>N° | " D " CONN.<br>MASTER TONES | PIN.<br>N° | " E " CONN.<br>CLOCK & DECODERS |
|------------|----------------------|------------|------------------------|------------|-------------------------------|------------|-----------------------------|------------|---------------------------------|
| 1          | KEY 1                | 1          | U.M.C. TRIGGER PULSE   | 1          | - MOS Vdd, ▽                  | 1          | NOT CONNECTED               | 1          | + CMOS Vdd, ▲                   |
| 2          | " 2                  | 2          | { AUXILIARY CHANNEL    | 2          | LOGIC GROUND, ▽               | 2          | TONE 12                     | 2          | LOGIC GROUND, ▽                 |
| 3          | " 3                  | 3          | "                      | 3          | + CMOS Vdd, ▲                 | 3          | " 11                        | 3          | X(L.S. D. RHYTHM CODE)          |
| 4          | " 4                  | 4          | CHORD TRIGGER PULSE    | 4          | - PREAMP. Vcc                 | 4          | " 10                        | 4          | Z(M.S. D. " " )                 |
| 5          | " 5                  | 5          | POSITIONING PIN        | 5          | + ) NOISE GEM.P.SUPPLY        | 5          | " 9                         | 5          | W(3 <sup>rd</sup> S.D. " " )    |
| 6          | " 6                  | 6          | CHORD OUT              | 6          | - ) (INTERNALLY CONN.)        | 6          | " 8                         | 6          | Y(2 <sup>nd</sup> S.D. " " )    |
| 7          | " 7                  | 7          | DRUM & ORCHESTRA OUT   | 7          | + PREAMP. Vcc                 | 7          | " 7                         | 7          | Z                               |
| 8          | " 8                  | 8          | ORGAN GROUND, ↓        | 8          | ORGAN GROUND, ↓               | 8          | " 6                         | 8          | TEST POINT                      |
| 9          | " 9                  | 9          | BASS OUT               | 9          | + ) LAMPS PWR.SUPPLY          | 9          | POSITIONING PIN             | 9          | { TEMPO CONTROL                 |
| 10         | " 10                 | 10         | " FREQUENCY            | 10         | - )                           | 10         | TONE 5                      | 10         | "                               |
| 11         | " 11                 | 11         | " ENVELOPE             | 11         | POSITIONING PIN               | 11         | " 4                         | 11         | PIZZICATO ACC. SELECT.          |
| 12         | " 12                 |            |                        | 12         | BASS ON                       | 12         | " 3                         | 12         | POSITIONING PIN                 |
| 13         | FIRST OCTAVE BUS BAR |            |                        | 13         | ACC. MOD. }                   | 13         | " 2                         | 13         | MONOPH. BRASS SELECT.           |
| 14         | SECOND " " "         |            |                        | 14         | ORCH. ON }                    | 14         | " 1                         | 14         | TEST POINT                      |
| 15         | POSITIONING PIN      |            |                        | 15         | ORCH. U.M.C. SWITCHING        |            |                             | 15         | TONE 12                         |
| 16         | MINOR & SEVENTH SEL. |            |                        | 16         | COMMON } POLES                | 18         | LOGIC GROUND, ▽             | 16         | Ø 2                             |
| 17         | MINOR SELECT. TIMING |            |                        | 17         | MAGIC CH. }                   | 19         | NOT CONNECTED               | 17         | Ø 1                             |
| 18         | SEVENTH " "          |            |                        | 18         | MAGIC CH. }                   | 20         | LOGIC GROUND, ▽             | 18         | CLOCK                           |
|            |                      |            |                        |            |                               | 21         | NOT CONNECTED               | 19         | NO SELECTED RHYTHM              |
|            |                      |            |                        |            |                               | 22         | + CMOS Vdd, ▲               | 20         | TONE 12* (Ø REF)                |
|            |                      |            |                        |            |                               |            |                             | 21         | RESET                           |
|            |                      |            |                        |            |                               |            |                             | 22         | W.B./S.D. SELECTION             |

| PIN.<br>N° | " F " CONN.<br>MODE COND. | PIN.<br>N° | " G " CONN.<br>ONE SHOT 'S | PIN.<br>N° | " H " CONN.<br>S. TOOTH GENERATION | PIN.<br>N° | " K " CONN.<br>ORCH. VOICING FILTER | PIN.<br>N° | " L " CONN.<br>CYMBALS VOICING |
|------------|---------------------------|------------|----------------------------|------------|------------------------------------|------------|-------------------------------------|------------|--------------------------------|
| 1          | + CMOS Vdd, ▲             | 1          | + CMOS Vdd, ▲              | 1          | + CMOS Vdd, ▲                      | 1          | LOGIC GROUND, ▽                     | 1          | ▲ (+CMOS Vdd) NOISE G.         |
| 2          | LOGIC GROUND, ▽           | 2          | LOGIC GROUND, ▽            | 2          | LOGIC GROUND, ▽                    | 2          | + CMOS Vdd, ▲                       | 2          | ▽ (-MOS Vdd) P.SUPPLY          |
| 3          | RHYTHM SELECT. STROBE     | 3          | BRASS ENVELOPE DRIVER      | 3          | PERC.1 TIMING PULSE                | 3          | - PREAMP. Vcc                       | 3          | + PREAMP. Vcc                  |
| 4          | PERCUSSION 2 ENABLE       | 4          | PERC. 1 TIMING PULSE       | 4          | " 2 "                              | 4          | + PREAMP. Vcc                       | 4          | POSITIONING PIN                |
| 5          | BRASS 2 " "               | 5          | " 2 " "                    | 5          | ACC. 1 SAMPLE " "                  | 5          | OPTOEL. POWER SUPPLY                | 5          | CYMBALS & H..H. OUT            |
| 6          | BRASS 1 " "               | 6          | ACC. 1 SAMPLE " "          | 6          | " 2 DISCH. " "                     | 6          | BRASS ENVELOPE DRIVER               | 6          | SNARE DRUM NOISE OUT           |
| 7          | PERCUSSION 1 " "          | 7          | " 2 DISCH. " "             | 7          | " 1 " "                            | 7          | PERC. 2 ENABLE                      |            |                                |
| 8          | BRASS TRIGGER PULSE       | 8          | " 1 " "                    | 8          | PIZZICATO ACC. SELECT.             | 8          | BRASS 2 " "                         | 23         | CYMBALS INHIBIT. PULSE         |
| 9          | ACC.2 TRIGGER PULSE       | 9          | U.M.C. TRIGGER PULSE       |            |                                    | 9          | " 1 " "                             | 24         | SNARE DRUM PULSE               |
| 10         | MONOPH. BRASS SELECT.     | 10         | PIZZICATO ACC. SELECT.     | 18         | PERC.2 ENVELOPE                    | 10         | PIZZICATO ACC.SELECT.               | 25         | HIGH HAT PULSE                 |
| 11         | ANY KEY                   | 11         | PERC. 1 ENABLE             | 19         | " 1 " "                            | 11         | PERC. 1 ENABLE                      | 26         | CYMBAL PULSE                   |
| 12         | SYNCRONISATION (PG'S)     | 12         | BRASS TRIGGER PULSE        | 20         | POSITIONING PIN                    | 12         | " 2 ENVELOPE                        | 27         | ORGAN GROUND, ↓                |
|            |                           | 13         | ACC.2 TRIGGER PULSE        | 21         | BRASS 2 SAW TOOTH                  | 13         | " 1 " "                             |            |                                |
| 17         | NO SELECTED RHYTHM        | 14         | " 2 FREQUENCY              | 22         | " 1 " "                            | 14         | BRASS 2 SAW TOOTH                   |            |                                |
| 18         | BASS DRUM PULSE           | 15         | " 1 " "                    |            |                                    | 15         | " 1 " "                             |            |                                |
| 19         | ACC. 2 TRIGG.PULSE        | 16         | BASS DRUM PULSE            |            |                                    | 16         | BASS ENVELOPE                       |            |                                |
| 20         | COND.ACC.1 TRIGG.PULSE    | 17         | Ø 1                        |            |                                    | 17         | " FREQUENCY                         |            |                                |
| 21         | TEST POINT                | 18         | CLOCK                      |            |                                    | 18         | " OUT                               |            |                                |
| 22         | RESET                     | 19         | { AUXILIARY CHANNEL        |            |                                    | 19         | " ON                                |            |                                |
| 23         | MODE AUT./MAN MODE EN.    | 20         | POSITIONING PIN            |            |                                    | 20         | POSITIONING PIN                     |            |                                |
| 24         | POSITIONING PIN           | 21         | POSITIONING PIN            |            |                                    | 21         | { ORGAN GROUND, ↓                   |            |                                |
| 25         | PAUSE                     | 22         | COND.ACC.1 TRIGG.PUL.      |            |                                    | 22         | "                                   |            |                                |
| 26         | MEMORY MODE ENABLE        | 23         | AUT./MAN. MODE EN.         |            |                                    | 23         | DRUM & ORCHESTRA OUT                |            |                                |
| 27         | DELAY STOP MODE EN.       | 24         | ACC.1 TRIGGER PULSE        |            |                                    | 24         | MIXED DRUM VOICING                  |            |                                |
| 28         | TOUCH MODE ENABLE         | 25         | ORCH.U.M.C. MODE EN.       |            |                                    | 25         | ORCHESTRA OUT                       |            |                                |
| 29         | DOWN BEAT PULSE           | 26         | AUT-W.BASS/MAN-A.BASS      |            |                                    | 26         | DRUM OUT                            |            |                                |
| 30         | MASTER ON                 |            |                            |            |                                    | 27         | MIXED DRUM & ORCH.LEV.              |            |                                |

| PIN.<br>N° | " M " CONN.<br>DRUM VOICING I | PIN.<br>N° | " N " CONN.<br>DRUM VOICING II | PIN.<br>N° | " P " CONN.<br>RHYTHM SEL. KEYBD. |
|------------|-------------------------------|------------|--------------------------------|------------|-----------------------------------|
| 1          | + PREAMP. Vcc                 | 1          | + PREAMP. Vcc                  | 1          | X(L.S.D.RHYTHM CODE)              |
| 2          | LOW BONGO OUT                 | 2          | NOT CONNECTED                  | 2          | Y(2 <sup>nd</sup> S.D. " " )      |
| 3          | " " PULSE                     | 3          | "                              | 3          | LOGIC GROUND, ▽                   |
| 4          | SNARE DRUM BONGO OUT          | 4          | HIGH BONGO OUT                 | 4          | RHYTHM SELECT STROBE              |
| 5          | POSITIONING PIN               | 5          | POSITIONING PIN                | 5          | Z(M.S.D.RHYTHM CODE)              |
| 6          | SNARE DRUM PULSE              | 6          | HIGH BONGO PULSE               | 6          | W(3 <sup>rd</sup> S.D. " " )      |
| 7          | BASS DRUM OUT                 | 7          | COW BELL, LOW, OUT             | 7          | Z                                 |
|            |                               |            |                                | 8          | POSITIONING PIN                   |
| 20         | BASS DRUM PULSE               | 20         | COW BELL PULSE                 | 9          | + CMOS Vdd, ▲                     |
| 21         | WOOD BLOCK OUT                | 21         | " " , HIGH, OUT                |            |                                   |
| 22         | " " PULSE                     | 22         | " " PULSE                      |            |                                   |
| 23         | ORGAN GROUND, ↓               | 23         | ORGAN GROUND, ↓                |            |                                   |

| PIN.<br>N° | " Q " CONN.<br>ACC.MODE SEL.KEYBD. | PIN.<br>N° | " R " CONN.<br>O.M. SEL.KEYBD. |
|------------|------------------------------------|------------|--------------------------------|
| 1          | + ) LAMP POWER SUPPLY              | 1          | + ) LAMP POWER SUPPLY          |
| 2          | AUT./MAN.MODE ENABLE               | 2          | POSITIONING PIN                |
| 3          | LOGIC GROUND, ▽                    | 3          | DOWN BEAT PULSE                |
| 4          | MAGIC CHORD AV.SW.PL.              | 4          | TOUCH MODE ENABLE              |
| 5          | MAGIC CHORD " " "                  | 5          | DELAY STOP MODE EN.            |
| 6          | AV.SW.P.OLES,COMMON                | 6          | MEMORY MODE ENABLE             |
| 7          | ORCH. U.M.C. MODE EN.              | 7          | PAUSE                          |
| 8          | " " " AV.SW.PL.                    | 8          | LOGIC GROUND, ▽                |
| 9          | " ON " " "                         | 9          | { TEMPO CONTROL                |
| 10         | ORGAN GROUND, ↓                    | 10         | "                              |
| 11         | ORCHESTRA LEVEL                    | 11         | "                              |
| 12         | " OUT                              |            |                                |
| 13         | DRUM LEVEL                         |            |                                |
| 14         | " OUT                              |            |                                |
| 15         | POSITIONING PIN                    |            |                                |
| 16         | ACC.MOD.AV.SW.POLE                 |            |                                |
| 17         | BASS ON " " "                      |            |                                |
| 18         | MASTER ON                          |            |                                |
| 19         | BASS ON                            |            |                                |



| MOD. N°           | DESCRIZIONE | DATA | SCALA | NOTE used on         | DATA | SCALA |
|-------------------|-------------|------|-------|----------------------|------|-------|
| DISIGN.           | 18.12.76    | T.M. | 1:2   | THE PERFORMER        |      |       |
| CONTR.            | 18.12.76    | T.M. |       |                      |      |       |
| VISTO             | 22.12.76    | T.M. |       |                      |      |       |
| N° 50-1161        |             |      |       | INTERCONNECTION LIST |      |       |
| MATERIALE         |             |      |       | TRATTAMENTO:         |      |       |
| SOSTITUIRE DAL N° |             |      |       |                      |      |       |
| SOSTITUITO DAL N° |             |      |       |                      |      |       |